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California Outlook: Agriculture 1980

July 1980

AN OVERVIEW

After another record year for farm income in 1979, California agriculture will contend with a widespread cost-price squeeze in 1980. In a national economy marked by recession and continued high inflation, the prices of many California farm products will be adversely affected by sagging consumer spending. The expected outcome is a gain in the state's gross farm income of 5 percent—but a decline in net income of more than 6 percent (see Table 1).

Total receipts for the state's field crops are expected to climb by 17 percent this year. Receipts from the sales of livestock and livestock products as well as fruits and nuts will increase at about the same rate as California's gross farm income. However, receipts for vegetables will drop by about 7.5 percent (see Table 3).

The net income growth of California farmers has outpaced inflation since 1970—as has the value of farm assets. At the same time, however, farmers' equity has risen less than inflation. This apparent paradox may be explained by farmers' increased use of debt.

While 1979's record income was a product of strong consumer spending and favorable yields, farmers this year must deal with slowing demand, sizable increases in production costs, and unrest in global commodity markets brought on by international tensions. In addition, an extended rainy season delayed plantings and increased the likelihood of poorer yields and higher losses at harvest time.

In real terms, the drop in net farm income will be more significant due to continued high inflation. Still, California farmers this year will fare better than the nation's agricultural sector as a whole. Net farm income in the state has increased by more than 20 percent in each of the last two years, and further appreciation of farm assets—particularly land—will help to strengthen balance sheets.

Milk will lead all California commodities in sales this year, with higher prices and increased production expected to bring receipts of about $1.6 billion. The comeback commodity of the year may well be sugar beets which should realize a significant boost in profitability and even greater returns in 1981.

Table 1: Realized Gross and Net Farm Income and Production Expenses in California, 1973-1980

Year	Realized Gross Income[1]	Percent Change	Farm Production Expenses	Percent Change	Realized Net Farm Income	Percent Change
	(millions)		(millions)		(millions)	
1973	$7,577.1	29.4%	$5,284.3	20.1%	$2,292.9	57.2%
1974	8,934.4	17.9	6,318.7	19.6	2,615.7	14.1
1975	8,878.4	-0.6	6,523.0	3.2	2,355.3	-10.0
1976	9,473.5	6.7	6,951.9	6.6	2,521.6	7.1
1977	9,805.0	3.5	7,300.9	5.0	2,504.1	-0.7
1978	10,843.0	10.6	7,784.6	6.6	3,058.5	22.1
1979[2]	12,315.0	13.6	8,550.0	9.8	3,765.0	23.1
1980[3]	12,930.0	5.0	9,405.0	10.0	3,525.0	-6.4

[1]Includes cash receipts, government payments, value of home consumption, gross rental value of farm dwellings, and income from recreation, machine hire, and custom work.
[2]Preliminary.
[3]Projected.

LIVESTOCK AND LIVESTOCK PRODUCTS: A Mixed Performance

Cash receipts for California's livestock and livestock products sector are expected to reach $4.1 billion this year, an increase of nearly 5 percent over 1979. Greater sales of milk and poultry will power the increase.

Income from the sale of cattle and calves, however, will show an 8 to 10 percent decline, as plentiful supplies and reduced prices of pork and poultry have lowered consumer demand for beef. Feedlot operators have been experiencing both a reduced volume of cattle sales and unprofitable market prices. Under such conditions, operators have been hesitant to purchase relatively expensive and seemingly unprofitable replacement animals—resulting in a drop in the average price of feeder cattle.

Cattle Prices Should Rise

Despite weaker prices for feeder cattle early in the year, producers of cattle and calves eventually will benefit from the short supply of feedlot replacements; and, with excellent pasture and range conditions left by plentiful winter rains, producers should be able to carry calves and stocker animals to heavier weights without major cost increases. Abundant feed supplies will also offer feedlot operators the option of taking lighter animals off feed and putting them on grass until slaughter steer prices become more attractive. Later this year, as supplies of pork and broilers dwindle, prices for slaughter steers are expected to climb into the mid- to high-$70s (per 100 pounds) from the high-$60s registered during the first half of the year.

While consumers are currently benefiting from large supplies of red meat and poultry, they should not expect any significant decline in retail beef prices over the next few years. The nation's beef cattle inventory in early 1980 showed no increase from last year, and California's beef herd actually dropped 7 percent. This suggests that the expansion phase of the cattle cycle begun last year may be relatively slow in developing.

Milk Supply Growth Will Moderate

While the state's beef cattle numbers have thinned, its milk cow herd has increased for the third consecutive year. In fact, stimulated by rising federal support prices, milk supplies have been increasing faster than commercial consumption, requiring significantly higher sales to the Commodity Credit Corporation, the federal agency which buys excess production in the forms of butter, cheese, and non-fat dried milk. Burgeoning milk supplies this spring exceeded processing capacity. As a result, processors have taken steps to reduce production, thus slowing cow herd expansion and softening prices for milk cow replacements. Rising milk prices and higher production will generate a 10 to 15 percent gain in cash receipts in 1980, making milk the state's number one agricultural commodity with total sales of about $1.6 billion.

Poultry and egg producers, betting on an improved market in the second half of 1980, will continue to expand production despite poor profit margins so far. With pork and beef prices expected to move up later this year, the market for broilers and eggs also should rebound. For all of 1980, cash receipts for eggs will fall to about $340 million from $369 million last year, despite an increase in output of 3 to 5 percent. Chicken and broiler sales are expected to increase 5 to 8 percent, to an estimated $200 million. Producers will benefit from only modest increases in feed costs. They will also see their products become more competitive in California markets because of the greater effect of rising transportation costs on out-of-state producers.

As consumers more closely watch food expenditures, poultry consumption will continue to rise due to its price competitiveness relative to red meats. The fast food industry is also turning to poultry in the search for moderately-priced menu items to bolster sales.

FIELD CROPS: Increased Acreage

Cash receipts from field crops will reach a record $2.6 billion in 1980, up 17 percent from last year. This rapid growth will be built on continued strong demand and profitable prices for cotton, as well as on higher prices for hay, increased plantings of wheat, and a resurgence in the price of sugar. Though cotton acreage will decline 3 percent from last year's record 1.65 million acres, higher prices will push sales above the $1.1 billion level achieved last year, meaning cotton will again reign as king of California's field crops (see Table 2).

Still, there are significant concerns among cotton producers this year. With cotton production expanding globally and greater supplies of the crop forthcoming, any further deterioration in the U.S. and European economies could result in reduced purchases by textile manufacturers, and in falling prices. Also, California cotton in particular could face difficult problems with insects—causing increased per-acre costs and possibly inferior yields. A mild, wet winter has left the foothills surrounding the San Joaquin Valley a perfect breeding ground for insects that could menace cotton crops as the summer heat kills grass, and new food sources must be

found. The cost of additional pesticide applications to guard against yield reductions will leave cotton producers more vulnerable to any weakening of prices.

Because of the price uncertainty posed by recession, about 19 percent of the nation's cotton crop was already under contract at the end of May, up from 12 percent at the same time in 1979. However, California producers—apparently more concerned about getting locked into contractual obligations and facing reduced yields—lowered commitments from 18 percent to 15 percent. Also, California cotton enjoys strong demand from the People's Republic of China and other Asian buyers, leaving producers in the state in a better demand situation than those in other parts of the country.

Expanded Demand for Hay

With expansion of the state's dairy herd, demand for high quality hay has increased. Presently, hay is in short supply, with stocks running about 8 to 10 percent below 1979 levels. Higher alfalfa hay prices have pulled up prices for other types of hay, prompting a 2 percent increase in 1980 hay acreage. While some of this land has gone for alfalfa plantings, acreage of other types of hay also will increase as farmers attempt to take advantage of high prices without making the longer term commitment required to grow alfalfa.

Expansion of grain acreage this year is probably more a reflection of an unfavorable outlook for vegetables than of promising prospects for grain. With wheat prices tending upward, wheat acreage will be up about 40 percent this year, much of the expansion on land formerly occupied by vegetables—particularly processing tomatoes. A moderate increase in rice acreage also is expected due to higher prices, strong export demand for short grain varieties, and plentiful water supplies. Yields will probably not match last year's, and—even with higher prices—total cash receipts will only be up slightly from last year's $326 million.

Sugar Beet Prices To Increase

A significant boost in profitability is seen for sugar beets. Prices for the crop are directly tied to prices for refined sugar, and the latter have nearly doubled over the past year. This is in marked contrast to the situation prevailing over the last three years when prices for refined sugar and sugar beets were so depressed that some refiners sold their facilities and many acres were shifted out of sugar beets into more profitable crops. Since sugar processing capacity has been reduced, growth of domestic production will be restrained.

Though sugar price increases will moderate in 1980 because of sizable inventories of refined sugar, these reserves will be quickly drawn down and further price increases are expected in 1981. Global sugar consumption has been rising in recent years due to population growth, higher incomes, and low prices. But worldwide production has been falling as land has been given over to the growing of pineapples and other more profitable crops. In the case of Brazil, available supply has been put to a new use. As that country moves to reduce its dependence on imported oil, some sugar cane is being used in the production of alcohol for fuel. Overall, these shifts will mean an unusually long period of high sugar prices. Because the United States is dependent on world markets for about 50 percent of its sugar supply, California's sugar beet producers can expect improving returns for the next few years. Sugar beets containing 15 percent sugar will return approximately $40 per ton in 1980, up $10 per ton from last year.

Table 2. Field Crop Plantings in California, 1978-1980 (thousands of acres)

Crop	1978	1979	1980[1]	Percent Change 1979-1980
Corn	420	430	450	+5%
Wheat-winter	650	820	1,130	+38
Wheat-Durum	120	47	105	+123
Oats	380	350	350	0
Barley	1,100	900	800	-11
Cotton	1,480	1,650	1,600	-3
Rice	493	525	570	+9
Sorghum	210	180	165	-8
Dry beans	216	205	200	-2
Sugar beets	204	230	230	0
Hay (all)	1,610	1,560	1,590	+2

[1]Indicated plantings as of June 1.

More Demand for High Fructose Corn Syrup

A notable development in the U.S. sweetener market in recent years is the entrance of a new competitive product, high fructose corn syrup (HFCS), a product of wet milling corn. At present, HFCS is suited only for industrial uses, principally in beverages, canned products, bakery goods, and confectionary products. Interest in HFCS should heighten as sugar prices escalate because it has been traditionally priced about 10 percent lower than sugar.

The HFCS industry recently received a boost when The Coca-Cola Company, the nation's largest single sugar consumer, announced that its bottlers would be allowed to use up to 50 percent HFCS in cola formulation. Previously, use of HFCS had

been limited to the company's non-cola products. While HFCS's share of the U.S. sweetener market may eventually reach 35 percent, such expansion will require the addition of considerable production capacity.

With some of these new facilities to be constructed in California, competition will intensify between local sugar refiners and HFCS processors to supply the state's growing food processing market. This suggests that, while sugar beet growers will benefit from higher sugar prices in the immediate future, local corn producers can also expect growing demand over the longer term. By the end of the decade, today's sugar beet growers may also become corn producers. Such a development could add more significance to the field crops sector in California's farm income profile in the 1980s.

FRUITS AND NUTS: Slower Growth

Total sales of fruits and nuts are expected to reach $2.8 billion in 1980, up 5 percent from last year. While 1979's near-perfect growing conditions provided excellent yields for most fruit and nut crops, 1980 yields are expected to be at or below normal levels.

The almond crop, for instance, was a record in 1979 and helped fuel a dramatic 63 percent increase in export sales of the crop. This year's yield is expected to be considerably smaller due to heavy rains during bloom. Because of new markets developed last year, almond prices will likely remain at their present profitable levels throughout 1980. This will continue to encourage expansion of almond acreage.

Apricots also were hit with unseasonable rain this spring. As a result, yields and total production will be below last year's levels. While prices will be higher, they will not rise enough to avoid a decline in total cash receipts for the crop. Production of plums, nectarines, and peaches is also expected to be lower than in 1979. Because of the decline in consumer income expected in 1980, fresh fruit may face some resistance at significantly higher retail prices. So, while some price improvement is expected, profit margins will remain relatively narrow.

The stone fruits also will face increased competition from oranges on the retail shelf. Orange production is up 48 percent in California and 25 percent nationally. With more abundant supplies, prices for oranges and other citrus fruits are considerably lower than last year's. Apples also are in ample supply and demand for them remains strong.

Grapes Again Lead in Sales

Grapes will continue to lead this sector in sales, with total receipts of $850 to $900 million expected in 1980. There are early indications that some varieties, most notably Thompson Seedless, may show below normal yields. If production does decline, grape prices will move higher, particularly for table and white wine grapes. Raisin prices are expected to remain at about $1,000 per ton (dry basis). Demand for the crop has been strong, and a smaller harvest in 1980 would tend to stifle any

Table 3. Cash Farm Receipts in California, 1973-1980

Year	Livestock and Livestock Products	Percent Change	Vegetables	Percent Change	Fruits and Nuts	Percent Change	Field Crops	Percent Change	Horticultural Specialties[1]	Percent Change
	(millions)		(millions)		(millions)		(millions)		(millions)	
1973	$2,565.2	22.8%	$1,266.6	18.4%	$1,648.0	52.1%	$1,383.4	41.2%	$365.3	25.4%
1974	2,786.3	8.6	1,595.8	26.0	1,611.0	-2.2	2,199.2	59.0	420.6	15.1
1975	2,802.6	0.6	1,695.5	6.2	1,622.9	0.7	1,905.8	-13.3	470.0	11.7
1976	2,922.5	4.3	1,599.5	-5.7	1,742.1	7.3	2,264.6	18.8	549.1	16.8
1977	2,952.3	1.0	1,883.5	17.8	2,092.5	20.1	1,824.9	-19.4	588.1	7.1
1978	3,414.1	15.6	2,034.1	8.0	2,427.5	16.0	1,828.6	0.2	664.8	13.0
1979[2]	3,954.6	15.8	2,186.0	7.5	2,706.5	11.5	2,194.3	20.0	732.0	10.2
1980[3]	4,140.0	4.7	2,022.0	-7.5	2,842.0	5.0	2,567.0	17.0	787.0	7.5

[1]Includes Forest Products.
[2]Preliminary.
[3]Projected.

significant price decline. In contrast, prune sales are running well below last year's levels, a signal of lower prices. Prunes are expected to average about $800 per ton in 1980.

Sales of table wines continue to grow and should not be dramatically affected by the recession. White wine accounts for most of the growth, with red wine sales declining from 1979 levels. This will mean only modest price increases for black wine grapes, though they are being increasingly used in rosé wines, and even in some white wines. Given relatively high interest rates, white wines also offer some financial benefits. Most require very short aging periods and can be bottled and sold in a single season. Red wines, on the other hand, tie up storage capacity and financial resources for two or more years.

Canned fruits—cling and freestone peaches, pears, and apricots—are expected to bring prices 5 to 10 percent above last year's. Though demand and inventory levels would seem to justify slightly higher gains, canners are reluctant to increase their raw product costs in light of other cost factors, uncertain future consumer demand, and already poor profitability. Total cash receipts from these fruits will be down slightly from last year's levels.

VEGETABLES: Lower Cash Receipts

Lower market prices for fresh vegetables and major reductions in acreage for virtually all processing vegetables will reduce total cash receipts to $2 billion, a decline of nearly 8 percent. If the remainder of summer and fall bring higher prices for fresh vegetables, growers could recoup some of the financial losses suffered this past winter when prices were generally below production costs and, in some cases, only covered the cost of packing. However, a slowdown in eating away from home by consumers is likely to sustain downward pressure on fresh vegetable prices as will current burdensome inventories of canned and frozen vegetables.

Contracted acreage for processing tomatoes is down 16 percent from 1979 and the average field price is expected to drop from $56.50 per ton last year to $47 per ton this year. Even with favorable yields, cash receipts are likely to decline 20 to 30 percent. This dramatic contraction is the result of California's ability to produce and process tomatoes far in excess of market demand.

Canned tomatoes and tomato product supplies last year grew beyond levels at which the market could profitably absorb them. In attempts to maintain market shares and to reduce expensive inventories, canners have been selling products at unprofitable prices, incurring large financial losses. In hope of correcting the cost-price situation in the future, some canners this year took a very aggressive position in setting contract terms and prices. They insisted on lower production and lower prices. In addition, proprietary canners included deferred pricing schemes in contracts to bring their costs for tomatoes more in line with those of cooperative canners. While the market for canned tomato products has improved and is expected to return to profitability in 1981, it has proven a major disruption in cash flow and cropping patterns for many California farmers.

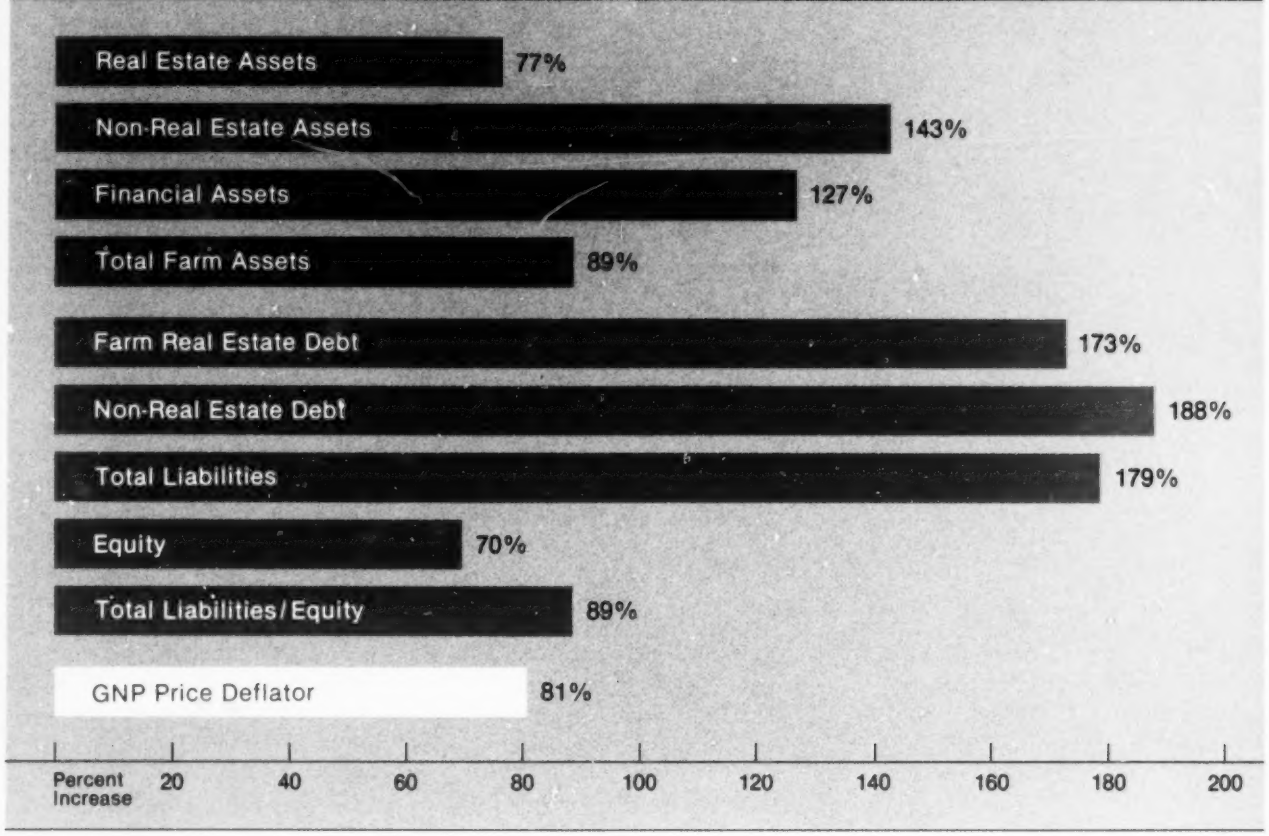
All Crops	Percent Change	Total Receipts	Percent Change
(millions)		(millions)	
$4,633.3	36.2%	$7,228.6	31.1%
5,826.6	24.9	8,612.9	19.2
5,694.2	-2.3	8,496.8	-1.3
6,155.3	8.1	9,077.9	6.8
6,389.0	3.8	9,341.3	2.9
6,954.5	8.9	10,368.6	11.0
7,818.8	12.4	11,773.4	13.5
8,218.0	5.1	12,358.0	5.0

CALIFORNIA AGRICULTURE AND INFLATION

One of the most notable characteristics of the past several years has been persistent inflation at record high levels. As measured by the Gross National Product (GNP) price deflator, inflation rose at an average annual rate of 6.7 percent during the 1970s, compared with average annual increases of 2.6 percent during the previous two decades.

In this prolonged inflationary environment, important changes occurred in the aggregate balance sheet of California's farming sector. Levels of debt increased dramatically while total assets and farmers' equity moved ahead more slowly. As farmers relied heavily on debt to fund operations, debt-to-asset and debt-to-equity ratios increased substantially.

FIG. 1 PERCENTAGE INCREASE IN CALIFORNIA FARM SECTOR ASSETS, LIABILITIES, AND EQUITY 1970-1979



Between 1970 and 1979, the 89 percent growth in the value of total farm assets more than kept pace with inflation's 81 percent rise, as measured by the GNP price deflator (see Figure 1). Surprisingly, farm real estate assets did not increase as fast as inflation during this time. However, farmland prices and real estate asset values have moved up more rapidly in the last two years. In 1979, for example, farm real estate assets rose nearly 20 percent.

Farm debt, on the other hand, rose from about $4 billion in 1970 to more than $11 billion in 1979, an increase of 179 percent. Importantly, farmers' equity grew only 70 percent during the decade, considerably slower than the inflation increase of 81 percent. While it generally has been accepted that, from a wealth standpoint, agriculture benefits from inflation, the real equity position of California's farm sector actually worsened during the 1970s (see Table 4).

It should be noted that agriculture's equity slippage cannot be attributed solely to inflation. Other factors and changes during this period may have contributed to this lower real equity position. It is also significant that the equity position trend in California agriculture runs counter to that of total U.S. agriculture. Proprietors' equity in the U.S. farming sector increased 161 percent during the 1970s—nearly twice the rise in inflation—and contributed to an improved national net worth position.

Changes in Farm Income and Expenses

The relationship of farm income to farm production expenses shifted markedly during the 1970s. Between 1970 and 1979, the average annual gains in gross income, 10.2 percent, and net income, 14.2 percent, were above the 9.0 percent average annual increase in farm production expenses. This relationship is in contrast to the 1950s and 1960s when annual average increases in production expenses were greater than gross and net income gains.

Furthermore, the state's aggregate net farm income rose substantially more than inflation during the 1970s. In the last 10 years, California's gross farm income increased 153 percent, while farm pro-

duction expenses rose 122 percent, and net farm income jumped 273 percent—increasing from about $1 billion in 1970 to an estimated $3.7 billion in 1979.

The seeming paradox between improving real net farm income and deteriorating proprietors' real equity is explained by sharp increases in the level of farm debt over the decade. This growth in debt is chiefly due to the purchase of increasingly expensive farm real estate for expansion purposes, and the costs associated with shifts to perennial crops which tend to produce more income. Also, debt for the purchase of sophisticated farm machinery has risen considerably.

It is important to note, however, that these aggregate figures may not be applicable to individual producers. For producers of crops that have increased only slightly in price, the generalization that net farm income has kept pace with inflation is certainly not true. In many of these cases, net farm income has been under considerable pressure resulting in cash-flow problems.

Cash-Flow Pressures Building

It is likely that pressures are building for increased cash-flow problems within California agriculture generally. Such problems can be expected in the future because of two basic reasons, both closely linked to continuing inflation. First, as growth in personal income fails to match inflation, consumer expenditures for food may be reduced. This will tend to limit price increases, especially for luxury agricultural products, and slow the growth in gross farm income. At the same time, inflation will continue to increase farm production expenses. The resulting squeeze will restrain net income growth—putting pressure on cash flow (see Figure 2). Cash-flow problems will be most acute for farmers who purchased farmland recently at inflated prices and consequently have larger debt burdens.

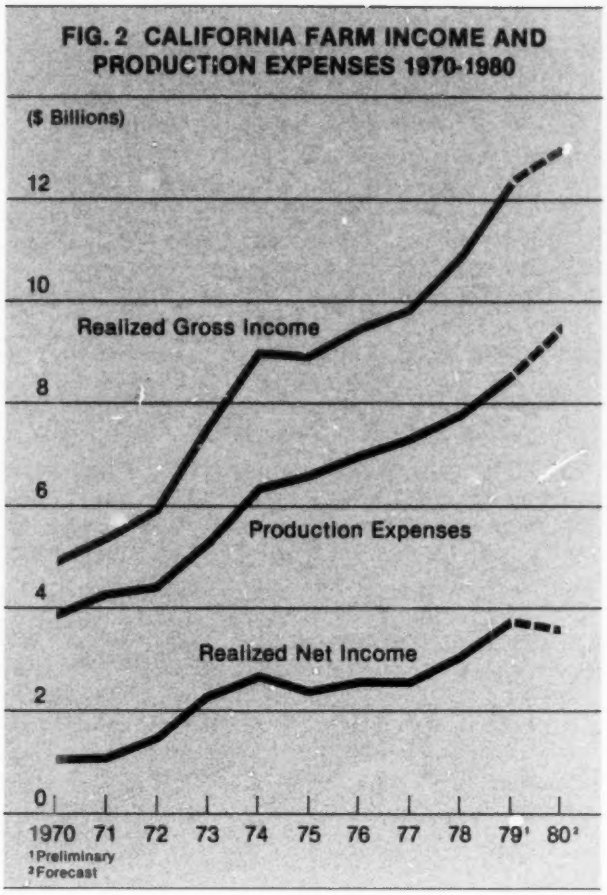
Faced with these developments, an essential task for California farmers will be to avoid or to minimize the squeeze on cash flow. One approach will be the traditional reliance on greater productivity, including the use of increased technology to reduce unit production costs. More crop diversification is likely, as is greater reliance on hedging and forward contracting to minimize risk. Further, there will probably be a continuing shift in cropping patterns toward the production of higher-income-producing crops. Uncertainties regarding the availability of water required for these crops and the development of markets to absorb additional production pose the greatest limitations on such crop shifts.

Finally, increased capital will be required. In view of increased pressure on income, it is uncertain how such capital can be obtained without turning to sources outside agriculture, or selling assets to generate the needed capital. Neither of these options will be popular but may be required if farmers

Table 4. Aggregate Balance Sheet for California Farming Sector 1970-1979 (In millions of dollars)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979[1]
Assets:										
Real Estate	17,531	17,050	17,685	18,019	19,950	22,724	23,113	23,151	25,874	31,038
Non-Real Estate	2,582	2,735	2,867	3,202	3,928	3,858	4,196	4,336	4,970	6,279
Financial	2,061	1,978	2,325	2,344	2,324	2,763	3,206	3,767	4,566	4,685
TOTAL ASSETS	22,174	21,763	22,877	23,565	26,202	29,345	30,515	31,254	35,410	42,002
Liabilities and Equity:										
Real Estate Debt	2,353	2,452	2,605	2,876	3,374	3,904	4,177	4,682	5,235	6,428
Non-Real Estate Debt	1,608	1,564	1,753	2,099	2,480	2,727	2,890	3,349	3,822	4,629
Total Liabilities	3,961	4,016	4,358	4,975	5,854	6,631	7,067	8,031	9,057	11,057
Proprietors' Equity	18,213	17,747	18,519	18,590	20,348	22,714	23,448	23,223	26,353	30,945
TOTAL LIABILITIES AND EQUITY	22,174	21,763	22,877	23,565	26,202	29,345	30,515	31,254	35,410	42,002
Debt-to-Asset Ratio (percent)	17.9%	18.5%	19.1%	21.1%	22.3%	22.6%	23.2%	25.7%	25.6%	26.3%
Debt-to-Equity Ratio (percent)	21.7	22.6	23.5	26.8	28.8	29.2	30.1	34.6	34.4	35.7

[1]Preliminary



are to weather cash-flow pressures. While no single action promises the answer for all farming operations, these alternatives, and others that may be conceived out of necessity, are likely to be utilized by California farmers to offset the effects of continued inflation.

CONCLUSION: A Year of Belt Tightening

California's gross farm income will move still higher in 1980, but net farm income will fall below the 1979 record high. Because of larger supplies of meat, canned and frozen vegetables, and other food items, income received by growers will not advance sufficiently to counter surging production costs. While the narrowing of margins will increase the need for careful management of cash flow and borrowed funds, adequate financial resources remain from last year's profitable season to secure the short-term financial resources needed for this year's production. With interest rates still at relatively high levels, expansion plans will likely be delayed until market conditions improve, interest rates fall, and long-term capital becomes more plentiful. With the expected improvement of canning industry profits, a return to profitable sugar prices, and the prospect of a stronger economic climate in 1981, this year's dip in net farm income is viewed as temporary and improvement is expected next year.

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